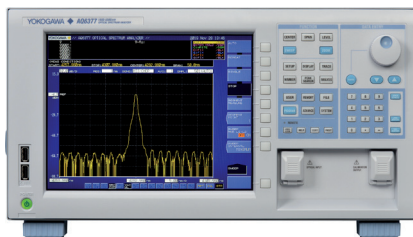
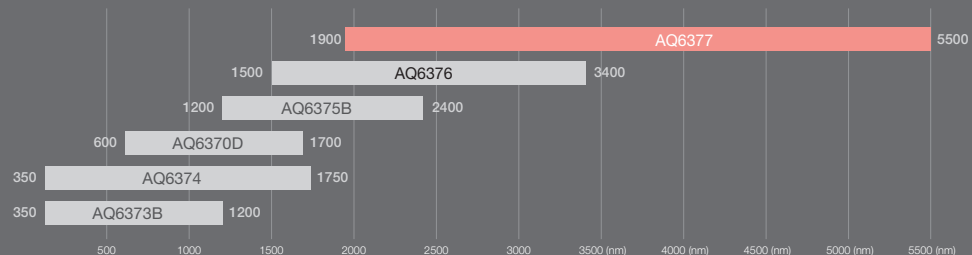


# AQ6377

## Optical Spectrum Analyzer

The world's first OSA that allows side mode analysis of MWIR lasers



The AQ6377 offers extended wavelength coverage which makes it the only OSA capable of analyzing the wavelength spectrum of lasers, used for medical, environmental sensing and aerospace applications, in the 3.5 to 5  $\mu\text{m}$  range (mid infrared), including their side modes, with high accuracy.

### World class optical performance and unique characteristics

**Wide wavelength range: from 1900 nm to 5500 nm**

Covers the MWIR region often used for environmental, medical and aerospace applications.

**5 wavelength resolution settings: from 0.2 nm to 5 nm**

The advanced monochromator with a wavelength resolution of 0.2 nm enables the detection of spectral signals which are in close proximity; this allows them to be distinguished and accurately measured.

**7 level sensitivity settings: from -60 dBm to +13 dBm**

Both high power as well as low power sources can be handled accurately and quickly, without any need to use averaging over many measurements. Moreover, with the High Dynamic Mode enabled, the instrument will maximize its dynamic range performance by eliminating the influence of stray-light which increases the noise floor, a disturbing factor for the photodetector caused by strong input signal.

**High wavelength accuracy: up to  $\pm 0.5$  nm**

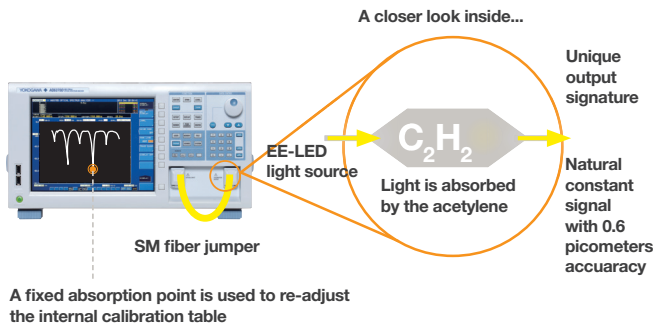
Wavelength calibration is possible using an external reference source and the built-in Wavelength Calibration function.

**Close-in Dynamic range: 50dB**

Thanks to the sharp spectral characteristics of the AQ6377 monochromator, signals in close proximity can be clearly separated and accurately measured.

## Built - in Calibration source (optional)

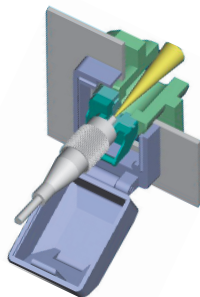
Vibration, shock and changes in ambient temperature affect the measurement accuracy of high precision instruments. We want our OSAs to be able to always deliver the precise measurements they were designed for, therefore our instruments are equipped with a light source for calibration.



The calibration process is fully automatic and only takes 2 minutes to complete. Calibration automatically aligns the optical path in the monochromator to assure the level accuracy and calibrates the spectrum analyzer with the reference source to ensure the wavelength accuracy.

## Free space optical input

The AQ6377 uses a free-space optical input structure, hence no fiber is mounted inside the instrument which makes it possible to connect both single-mode MWIR fibres and multimode (up to 400  $\mu m$ ) to the same instrument, and delivers a low and stable insertion loss, which increases measurement repeatability. The lack of physical contact also eliminates the possibility of damage when fibres are connected.



## Built-in Gas Purge System

Due to the high resolution and sensitivity of the AQ6377, it can actually detect the presence of water molecules in the air. The water vapor is detected in the upper Near-IR wavelength region and could overlap with or mask the spectral characteristics of the actual device under test in that particular region. By continuously supplying a pure purge gas such as nitrogen to the monochromator through the ports on the back panel, the AQ6377 can reduce the influence of water vapor absorptions and provide more reliable and accurate measurements than ever before.



Effect of purging (dry-air, 1 hour) water vapor absorptions around 1900 nm



Purge gas ports (input and output)

## Warranty

The quality and reliability of the AQ6377 is supported by a standard 1 year warranty period.

## Why choose the AQ6377?

**Reliability** – The most trusted OSAs in the world thanks to their unmatched measurement accuracy, robustness and proven quality.

**Performance** – Best in class, state of the art and high-precision instruments that keep pace with the ever changing and quickly evolving optical technology.

**Expertise** – For more than 30 years, our R&D and Product Specialist teams have been listening to the needs of OSA users to continuously provide them with innovative and effective solutions for their measuring challenges.

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